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Product datasheet for RC203786

OLFM2 (NM_058164) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OLFM2 (NM_058164) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OLFM2
Synonyms:	NOE2; NOELIN2; NOELIN2_V1; OlfC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC203786 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGGCCGCTCACGGTCCCGCCGCCGCTGCTGCTGCTGTGCTCAGGCCTGGCCGGACAGACTCTCT
TCCAGAACCCAGAAGAGGGCTGGCAGCTGTACACCTCAGCCCAGGCCCCTGACGGGAAATGCATCTGCAC
GGCCGTGATCCCAGCGCAGAGTACCTGCTCTCGAGATGGCAGGAGTCGGGAGCTGCGGCAACTGATGGAG
AAGGTCCAGAACGTCTCCCAGTCCATGGAGGTCCTTGAGTTGCGGACGTATCGCGACCTCCAGTATGTAC
GCGGCATGGAGACCCTCATGCGGAGCCTGGATGCGCGGCTCCGGGCAGCTGATGGGTCCCTCTCGGCCAA
GAGCTTCCAGGAGCTGAAGGACAGGATGACGGAACTGTTGCCCCTGAGCTCGGTCCTGGAGCAGTACAAG
GCAGACACGCGGACCATTGTACGCTTGCGGGAGGAGGTGAGGAATCTCTCCGGCAGTCTGGCGGCCATTC
AGGAGGAGATGGGTGCCTACGGGTATGAGGACCTGCAGCAACGGGTGATGGCCCTGGAGGCCCGGCTCCA
CGCCTGCGCCCAGAAGCTGGGCTGTGGGAAGCTGACCGGGGTCAGTAACCCCATCACCGTTCGGGCCATG
GGGTCCCGCTTCGGCTCCTGGATGACTGACACGATGGCCCCCAGTGCGGATAGCCGGGTCTGGTACATGG
ATGGCTATTACAAAGGCCGCCGGGTCCTGGAGTTCCGTACCCTGGGAGACTTCATCAAAGGCCAGAACTT
TATCCAGCACCTGCTGCCCCAGCCGTGGGCGGGCACGGGCCACGTGGTGTACAACGGCTCCCTGTTCTAT
AACAAGTACCAGAGCAACGTGGTGGTCAAATACCACTTCCGCTCGCGCTCTGTGCTGGTGCAGAGGAGCC
TCCCGGGCGCCGGTTACAACAACACCTTCCCCTACTCCTGGGGCGGCTTCTCCGACATGGACTTCATGGT
GGACGAGAGCGGGCTCTGGGCTGTGTACACCACCAACCAGAACGCGGGCAACATCGTGGTCAGCCGGCTG
GACCCGCACACCCTCGAGGTCATGCGGTCCTGGGACACCGGCTACCCCAAGCGCAGCGCTGGCGAGGCCT
TCATGATCTGCGGTGTGCTCTACGTGACCAACTCCCACCTGGCTGGGGCCAAGGTCTACTTCGCCTATTT
TACCAACACGTCCAGTTACGAGTACACGGACGTGCCCTTCCACAACCAGTATTCCCACATCTCGATGCTG
GATTACAACCCCCGGGAGCGCGCCCTCTATACCTGGAACAACGGCCACCAGGTGCTCTACAATGTCACCC
TGTTTCACGTCATCAGCACCTCTGGGGACCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203786 protein sequence
Red=Cloning site Green=Tags(s)

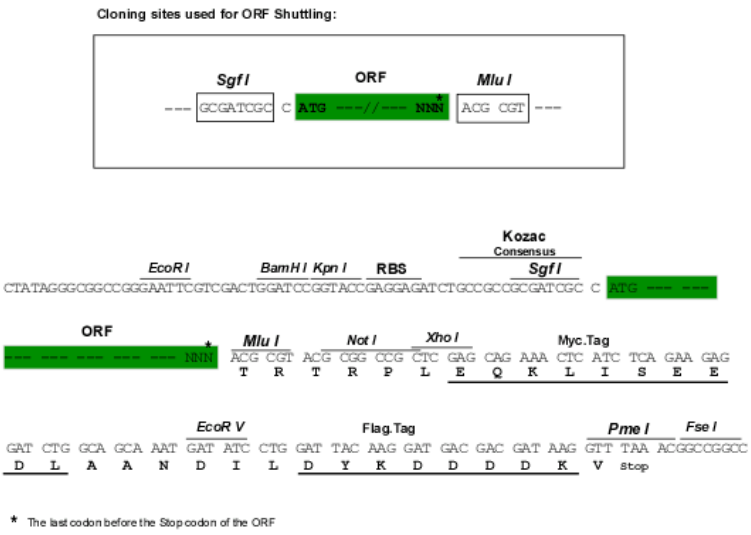
MWPLTVPPPLLLLLCSGLAGQTLFQNPEEGWQLYTSAQAPDGKCICTAVIPAQSTCSRDGRSRELRQLME
KVQNVSQSMEVLELRTYRDLQYVRGMETLMRSLDARLRAADGSLSAKSFQELKDRMTELLPLSSVLEQYK
ADTRTIVRLREEVRNLSGSLAAIQEEMGAYGYEDLQQRVMALEARLHACAQKLGCGKLTGVSNPITVRAM
GSRFGSWMTDTMAPSADSRVWYMDGYYKGRRVLEFRTLGDFIKGQNFIQHLLPQPWAGTGHVVYNGSLFY
NKYQSNVVVKYHFRSRSVLVQRSLPGAGYNNTFPYSWGGFSDMDFMVDESGLWAVYTTNQNAGNIVVSRL
DPHTLEVMRSWDTGYPKRSAGEAFMICGVLYVTNSHLAGAKVYFAYFTNTSSYEYTDVPFHNQYSHISML
DYNPRERALYTWNNGHQVLYNVTLFHVISTSGDP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6088_d05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_058164

ORF Size: 1362 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_058164.4

RefSeq Size: 1899 bp

RefSeq ORF: 1365 bp

Locus ID: 93145

UniProt ID: O95897

Cytogenetics: 19p13.2

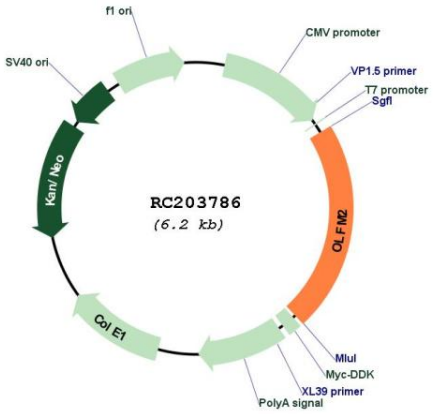
Domains: OLF

Protein Families: Druggable Genome, Secreted Protein

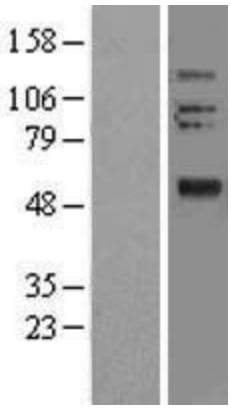
MW: 51.4 kDa

Gene Summary: Involved in transforming growth factor beta (TGF-beta)-induced smooth muscle differentiation. TGF-beta induces expression and translocation of OLFM2 to the nucleus where it binds to SRF, causing its dissociation from the transcriptional repressor HEY2/HERP1 and facilitating binding of SRF to target genes (PubMed:25298399). Plays a role in AMPAR complex organization (By similarity). Is a regulator of vascular smooth-muscle cell (SMC) phenotypic switching, that acts by promoting RUNX2 and inhibiting MYOCD binding to SRF. SMC phenotypic switching is the process through which vascular SMCs undergo transition between a quiescent contractile phenotype and a proliferative synthetic phenotype in response to pathological stimuli. SMC phenotypic plasticity is essential for vascular development and remodeling (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC203786



Western blot validation of overexpression lysate (Cat# [LY403325]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203786 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).